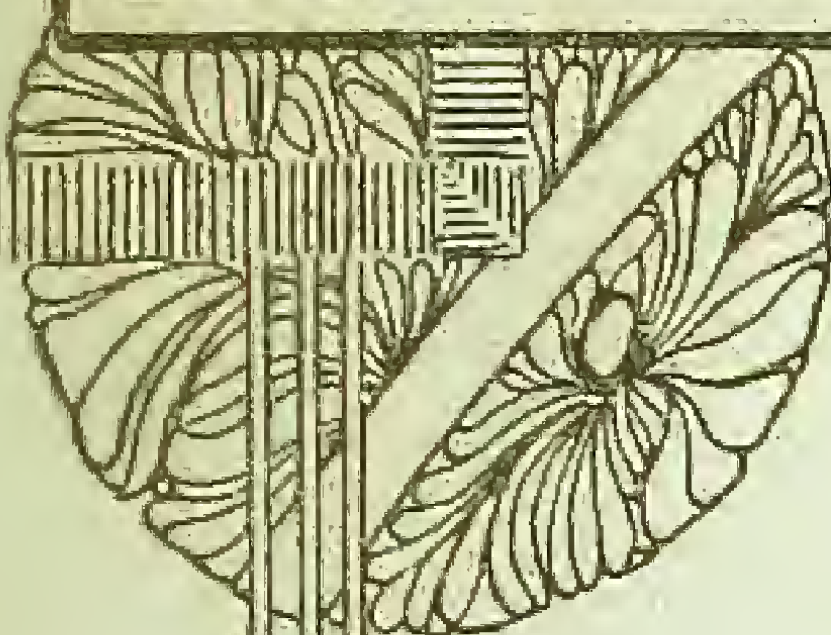


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Carl Haring

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UNITED PUMP & POWER COMPANY



Pneumatic
Pumps
Steel
Windmills
Tilting
Towers
Compressors
Electric
Motors
Gas and Gaso-
line Engines



OFFICES:
FOURTH FLOOR, OLD COLONY BUILDING
EXHIBIT ROOMS:
EIGHTH FLOOR, 334 DEARBORN ST.
CHICAGO



UNITED PUMP & POWER COMPANY

INCORPORATED UNDER THE
LAWS OF THE STATE
OF ILLINOIS

CAPITAL STOCK
\$100,000.00

OFFICERS

J. A. TOWNSEND, PRES. & TREAS.
L. C. LANDIS, VICE-PRES., J. M. SWANSTROM, SECY.

DIRECTORS

J. A. TOWNSEND, L. C. LANDIS, J. M. SWANSTROM,
J. M. WOODWORTH, MARTIN SWANSTROM.

THOMAS O. PERRY, C. E., PATENTEE AND CONSULTING
ENGINEER,



Manufacturers of the Perry Pneumatic Water Supply
System for domestic use, village water works,
summer resorts, irrigation purposes and for
augmenting city water service in
large buildings

Artesian Well Contractors

GENERAL OFFICES:
FOURTH FLOOR, OLD COLONY BUILDING

EXHIBIT AND ASSEMBLING ROOM
810, 334 DEARBORN STREET

CHICAGO, ILL.

Telephone Harrison 196.

Automatic 4243

INTRODUCTORY

OUR PRODUCTS

On the following pages we illustrate and describe a perfect Compressed-Air Water System for country homes, village water works, summer resorts, irrigation purposes and for increasing the efficiency of city water service in high buildings.

The United Pump & Power Co. manufacture and sell *Pneumatic Water Pumps, Steel Windmills, Air Compressors, Tilting Towers, Electric Motors* and *Gas and Gasoline Engines.*

PATENTS

The United Pump & Power Co. owns and controls the basic patents on the only pneumatic pump available for domestic use, together with Thos. O. Perry's other patents on *Self-regulating Steel Windmills, Automatic Starting and Stopping Devices* for motive power, and *Improved Tilting Towers.*

THE INVENTOR

Mr. Perry has been recognized as an authority on water supply and irrigation matters by the United States Government through its Chief Engineer of the Hydrographic Branch of the United States Geological Survey. Mr. Perry prepared what is known as Water Supply and Irrigation Paper No. 20, published by the United States Government in 1899, containing the detailed results of and discussions relating to his earlier experiments. This Water Supply and Irrigation Paper No. 20 may be found in nearly all large libraries among the Government publications.

TO YOUR INTEREST

It will be to your advantage to know all about the superior qualities of our Compressed-Air Water System. Our Pneumatic Pump is substantial in construction and convenient to install. *It is the only pump that will furnish water direct from the well or cistern to any number of points desired, irrespective of height and distance.*

**A
TWO-THIRDS
SAVING**

With the United Pump & Power Co.'s system, compressed air *ONLY* is stored. So-called compressed air water systems now on the market store both water and air in the same tank, thus using two-thirds of the tank capacity for storing water and reducing the capacity by two-thirds.

**AIR
COMPRESSOR**

Our Air Compressor may be operated by any motive power desired, either windmill, electric motor, gas or gasoline engine, all excepting the latter, starting and stopping automatically, without any attention whatever.

**FRESH
WATER**

No tank, either elevated or underground, is needed for the storage of *WATER*, thus eliminating the annoyance and expense of repairing leaking tanks caused by warping in Summer and freezing in Winter. Furthermore, water stored in a tank is bound to become stagnant and accumulate slime and filth.

**AIR
STORAGE**

When a windmill is used as a motive power, a sufficient amount of air may be stored for a number of days, so that if the wind does not blow, there will constantly be a supply of fresh water direct from the bottom of the well.

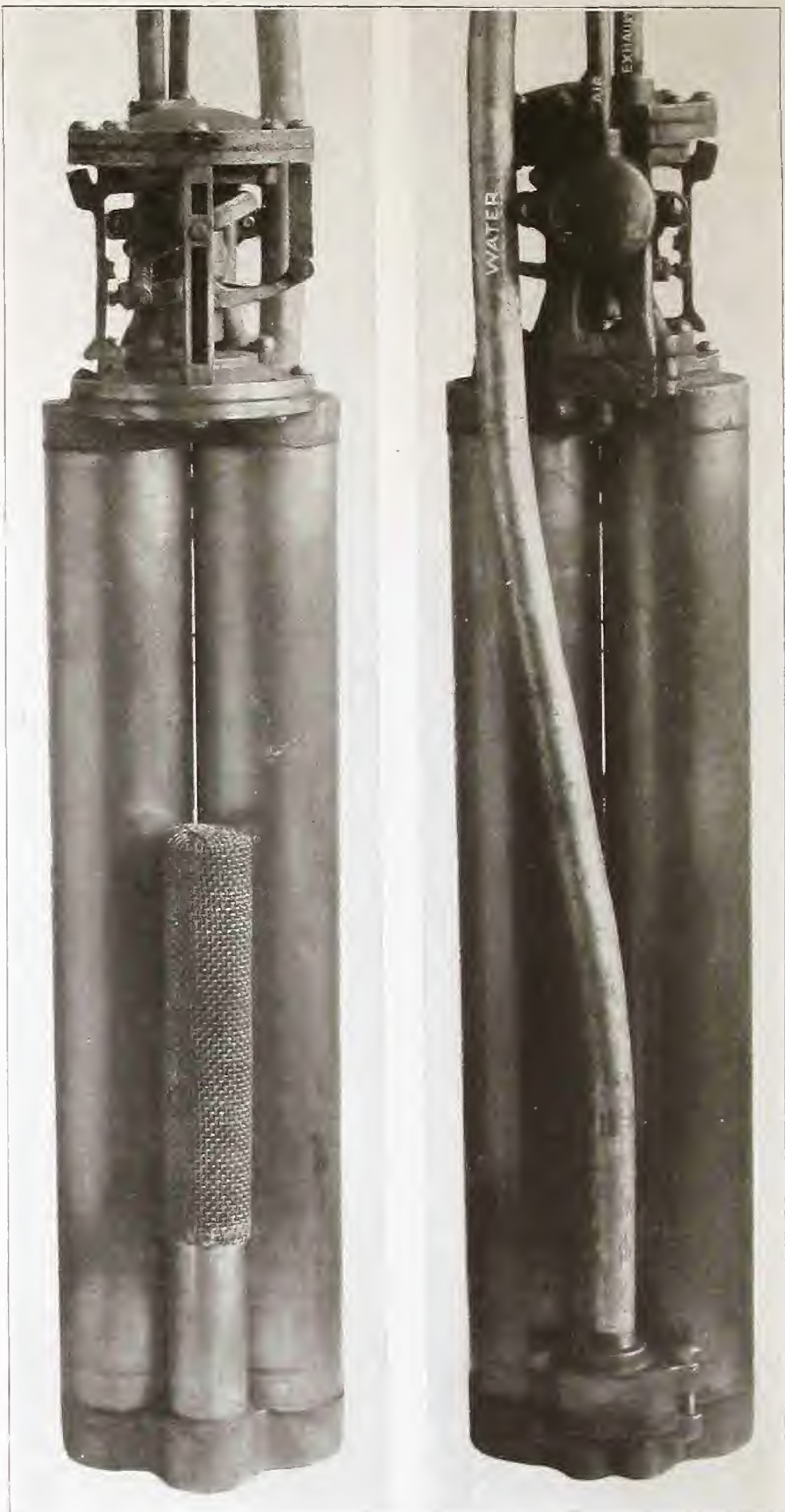
Our Improved Steel Windmill is the result of twenty-five years of careful study and scientific experimental work by the inventor, constructed entirely of steel and is practically indestructable.

**INCREASED
POWER**

By reason of the superior mechanism, it is self-adjustable in varying winds and its efficiency is 40 per cent greater, i. e., a six-foot wheel will create as much power as an eight-foot of any other make.

CAPACITY

The capacity of systems that store air and water in a tank is but two-thirds of the total volume of the tank. That is, a 1,000 gallon tank will deliver about 670 gallons of water with one charging. With this 1,000 gallon tank used for air only, the Perry System will deliver over 5,000 gallons of water, or 8 times as much as any other system now on the market.



THE PNEUMATIC PUMP

The Perry Pneumatic Pump is submerged in the water of a well, cistern, spring or other source of water supply, and will force the water anywhere it may be needed for use, by means of compressed air.

Compressed air is conducted
INEXHAUSTIBLE from a tank to the pump
SUPPLY through one of the small pipes
 connecting with the top of the apparatus. Water is
 forced out at the bottom of the pump through the
 large pipe, which will deliver the water at any distance
 or elevation, to any number of faucets.

USED IN BUILDINGS

One of the objects of this pump is to avoid the necessity of elevated tanks for supplying the upper stories of country houses or tall buildings. The compressed air acts directly on the water, without the intervention of a piston, producing a continuous, uninterrupted flow of water direct from the well whenever a faucet is opened.

MECHANISM

The pump consists essentially of two water chambers with intake and check valves and an automatic air valve, which alternately allows air to enter and escape from the two water chambers.

The whole apparatus, of sufficient size to supply ordinary use, weighs only 15 lbs. Flange Pipe-coupling, with ordinary bolts, is used in the well so that the pump may be connected or detached easily without the use of other tool than a common wrench. On account of its lightness the pump is easily handled by one man without the aid of rope or tackle.

EASILY INSTALLED

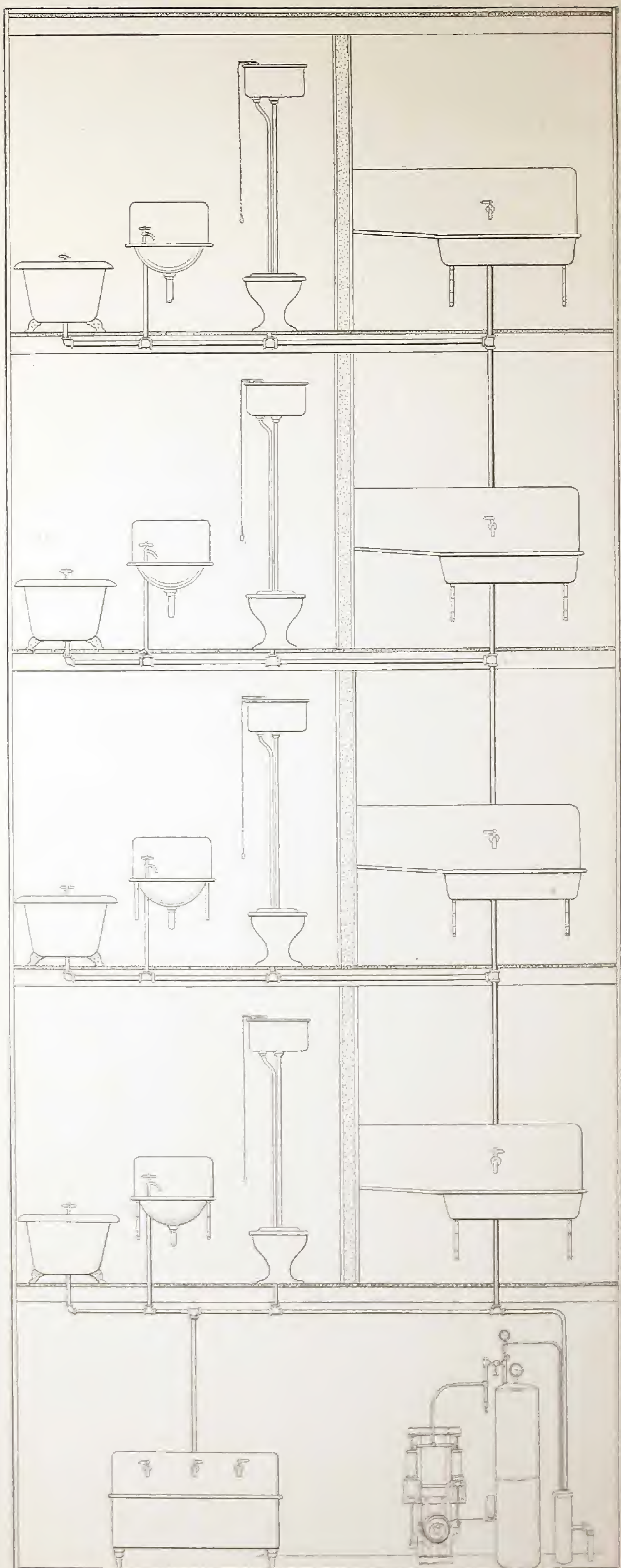
The pump may rest on the bottom of the well, or can be suspended by the water pipe. No special fastening is necessary, and there is neither pump rod nor stuffing box to bother or necessitate exact alignment of the pipe. There are no parts to wear or get out of order.

This Pneumatic Pump effectively solves the problem of raising water from wells or springs where the available power needs to operate at a distance from the pump.

NO WASTE POWER

For ordinary domestic purposes, the motor required for compressing air seldom needs to exceed $\frac{1}{4}$ horse power. An ordinary lift pump, such as is commonly used with windmills, in ordinary cases is incapable of utilizing the full power of even a $\frac{1}{4}$ horse power motor, and most wells will not supply all the water that a $\frac{1}{8}$ horse power motor is capable of elevating. Consider then the folly of using a two horse power engine only to operate an ordinary pump. But the full power of a motor may be used to pump air into a reservoir, enough to last several days without running more than an hour or two. Then the stored compressed air may be used to keep a steady stream of water flowing from the well without interruption day and night, if need be.

Where a windmill is used, its surplus power in high winds may be used to store air. Surplus power can not be used to store water in excess of what the pump can use or the well may supply.



The PERRY PNEUMATIC WATER SYSTEM delivers fresh water direct from the main to all the floors of a high building, without the use of a water tank.

NOTHING LIKE THE PERRY SYSTEM HAS EVER BEEN SOLD

Don't confuse it with others that require a storage of water, or air and water, as a means of supply.

**REMEMBER!
WE STORE NO WATER.**

Advantage of the Perry System over All Others:

It delivers a strong pressure of fresh water to the faucets, direct from the main, well or cistern.

It is cheaper than any other system to install.

It costs less than any other system to maintain.

The PERRY SYSTEM may be installed in a very small space in the basement, in any convenient location, and at any distance from the source of water supply.

It is absolutely automatic. Janitors sometimes forget. The Perry System never does.

For fire protection it is invaluable, as the amount of water at your disposal is not limited to the size of a tank.

Disadvantages of Other Systems

Water stored in a tank is unhealthful, as it becomes stale and impure.

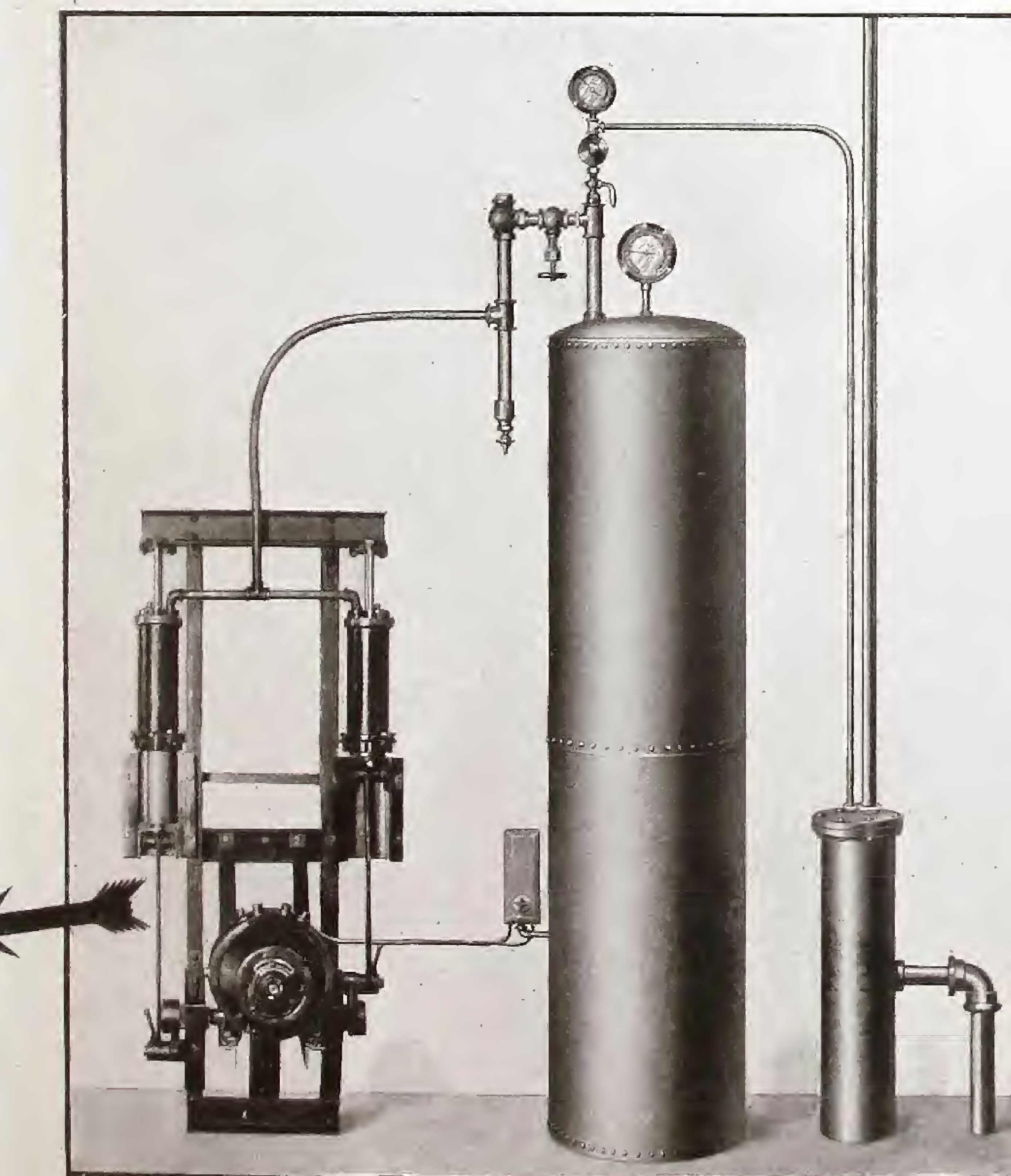
Tanks are expensive to install and maintain.

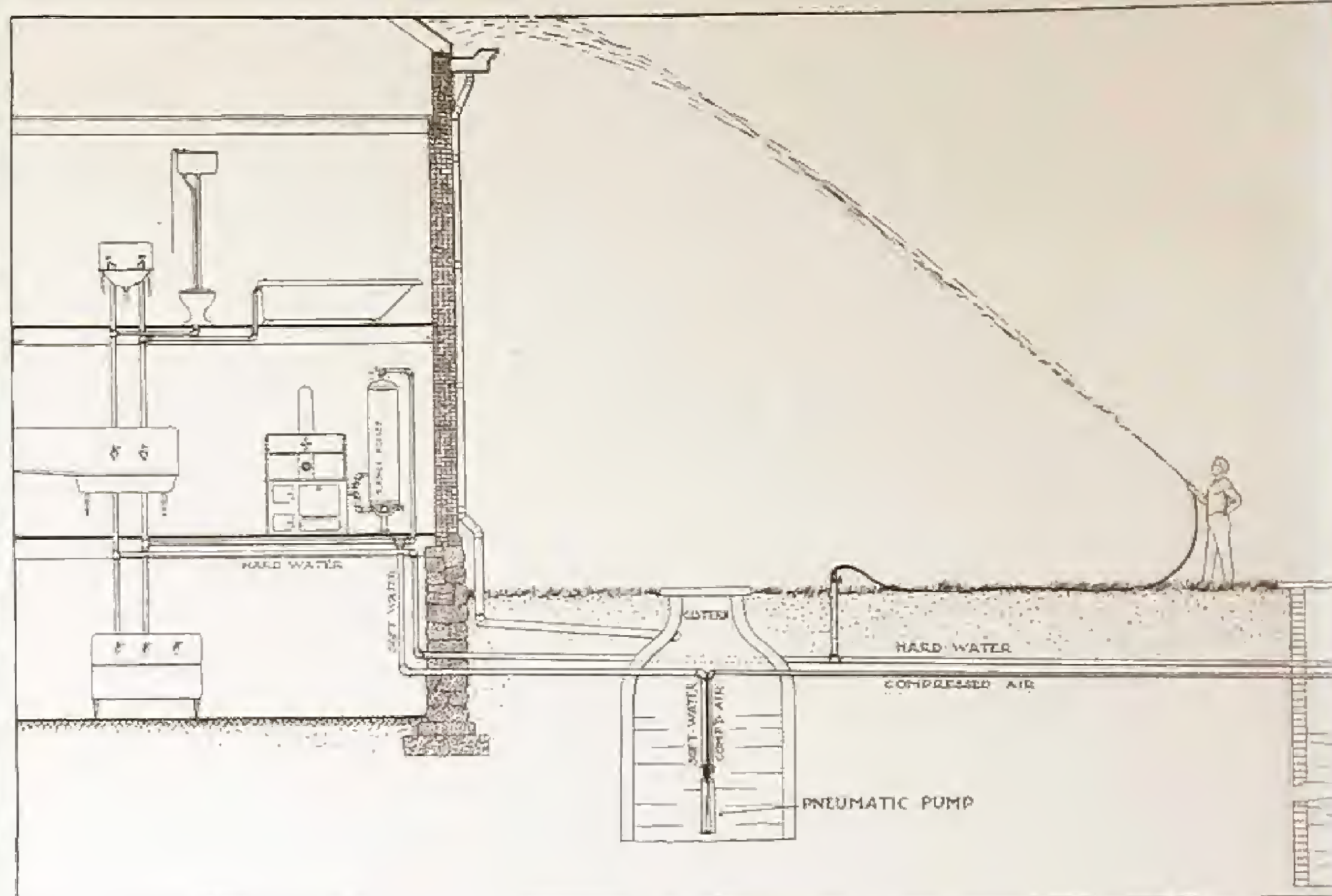
Tanks freeze up in the Winter.

Tanks supply warm, stagnant water in Summer.

Tanks rot out and must be replaced every few years.

**BETTER SERVICE
FRESH WATER LESS COST
WITH
THE PERRY SYSTEM**





THE SUBURBAN HOME

Take, for instance, a suburban home where it is desirable to have both well and cistern water in the house, and where water is also wanted in the stable, and for sprinkling purposes.

POWER

The Perry Pneumatic Water System will solve this problem most effectively. Any power may be used—either electricity, gas, gasoline or wind mill. The above cut shows the Air Compressor run by an electric motor. The air is stored in a tank, which contains *air only*, and by running the motor a short time, enough air pressure may be attained to last for several days, as the Pumps operate only when faucets are opened. From this tank, the air is piped down to the Pneumatic Pumps in the bottom of the well and cistern. Any number of Pumps may be attached to this air pipe for other wells or cisterns, if desired.

NO PISTONS

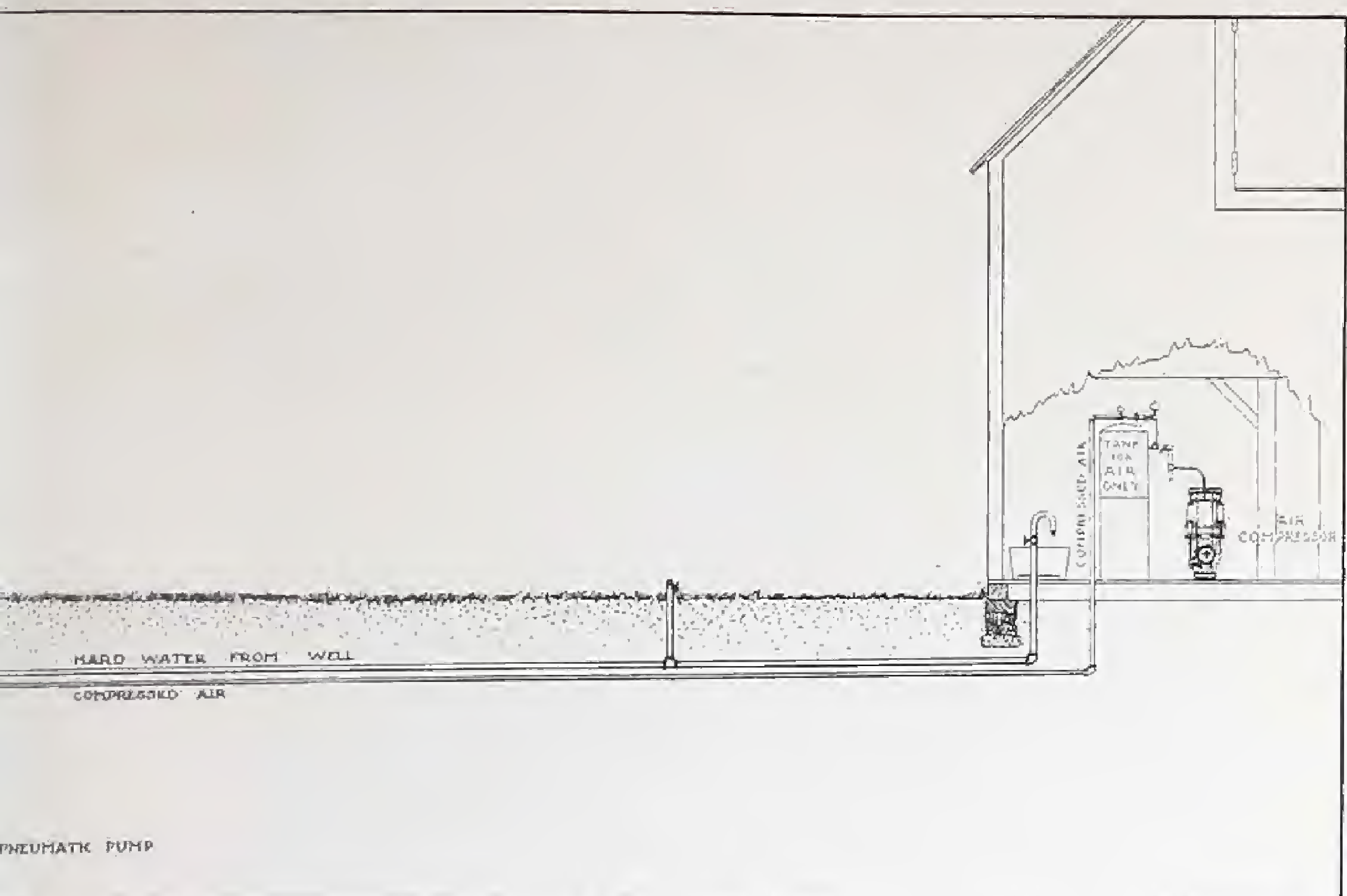
The compressed air is admitted through a valve at the top of the Pump and acts directly on the cylinders, alternately forcing the water out of each and producing a steady flow at high pressure.

AUTOMATIC CONTROL

The entire system is automatic. When the air force in the Tank is reduced to the minimum working pressure, the motor is started automatically and works until the maximum pressure is reached, when it is again automatically stopped.

OLD STYLE SYSTEMS

All so called pneumatic systems now on the market store both air and water in the same tank, and can hardly supply two-thirds of their capacity of water. Thus, a 1,000 gallon tank used by any of these systems will give less than 650 gallons of water with one charging.



COMPARATIVE CAPACITY

This same Tank, used for *compressed air only*, with the Perry System will deliver over 5,000 gallons of water, or 8 times as much water as any other System now on the market.

WEATHER CONDITIONS

The Perry System is not affected by heat or cold, as all pipes are laid below frost line, as indicated in the illustration, and the water is always drawn fresh from the source of supply.

PLUMBING

It is not necessary to make special arrangements for plumbing, as we attach the Perry Pneumatic Water System to the supply pipes ordinarily used in the house.

EXTENSIONS

A country home can have all the advantages of city life—and more; with the addition of one pump and a few feet of piping, you may have soft water from the cistern at all times by simply turning a faucet. This, with any other system, would mean another complete outfit. With the Perry System it means only an extension of the original System. The Perry System, like a sectional bookcase, “grows with you.”

FIRE INSURANCE

The installation of a Perry Pneumatic Water System will undoubtedly reduce the rate of insurance materially, as it is the ideal System for fire protection.



A glance at the illustration opposite is sufficient to give the reader an idea of a condition that exists in all cities.

These tanks are not placed on the tops of expensive and otherwise handsome buildings for ornamental purposes. They are there because heretofore they have been a necessity for fire protection and for furnishing the upper floors with water.

The city water pressure of Chicago is only about 16 lbs even in the business district, and will not deliver water higher than the third floor; therefore, the elevated tank, which gives the occupants of the building an inadequate fire protection as well as stagnant water for other purposes.

No other argument is needed to convince the architect or builder of the disadvantages of the water-tank system than to ask them to consider the cost of installing a tank on the roof, bearing in mind that walls and roofs must be especially constructed to carry this enormous weight. We could mention instances where tanks have fallen from the roof to the basement of high buildings, destroying both life and property.

Consider the cost of frequent painting and repairing, as well as protection from the cold in order to prevent freezing in winter. Aside from the foregoing, think of the unhealthful, stale and impure water; also remember that the life of the tank is only about five years and must then be replaced.

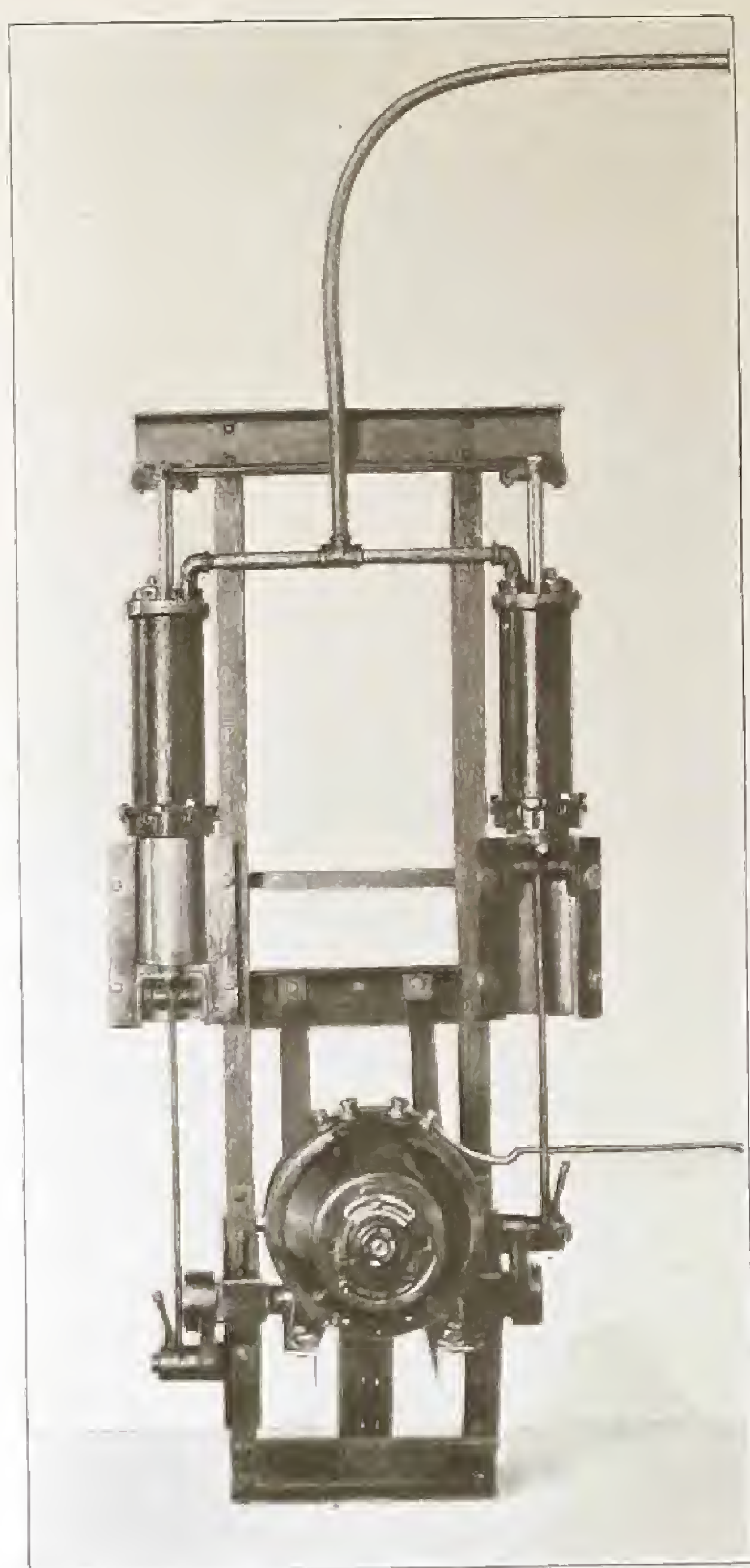
Specify and Install The
PERRY SYSTEM
and eliminate every one of
these disadvantages

We deliver water, under pressure, from the main direct to the faucets without the use of a water-storage tank.

ARTESIAN WELLS

Many of the larger consumers of water in Chicago and other cities find it to their advantage to sink artesian wells, and thereby control their own water supply.

We solicit contracts for deep wells and furnish estimates of cost upon application.

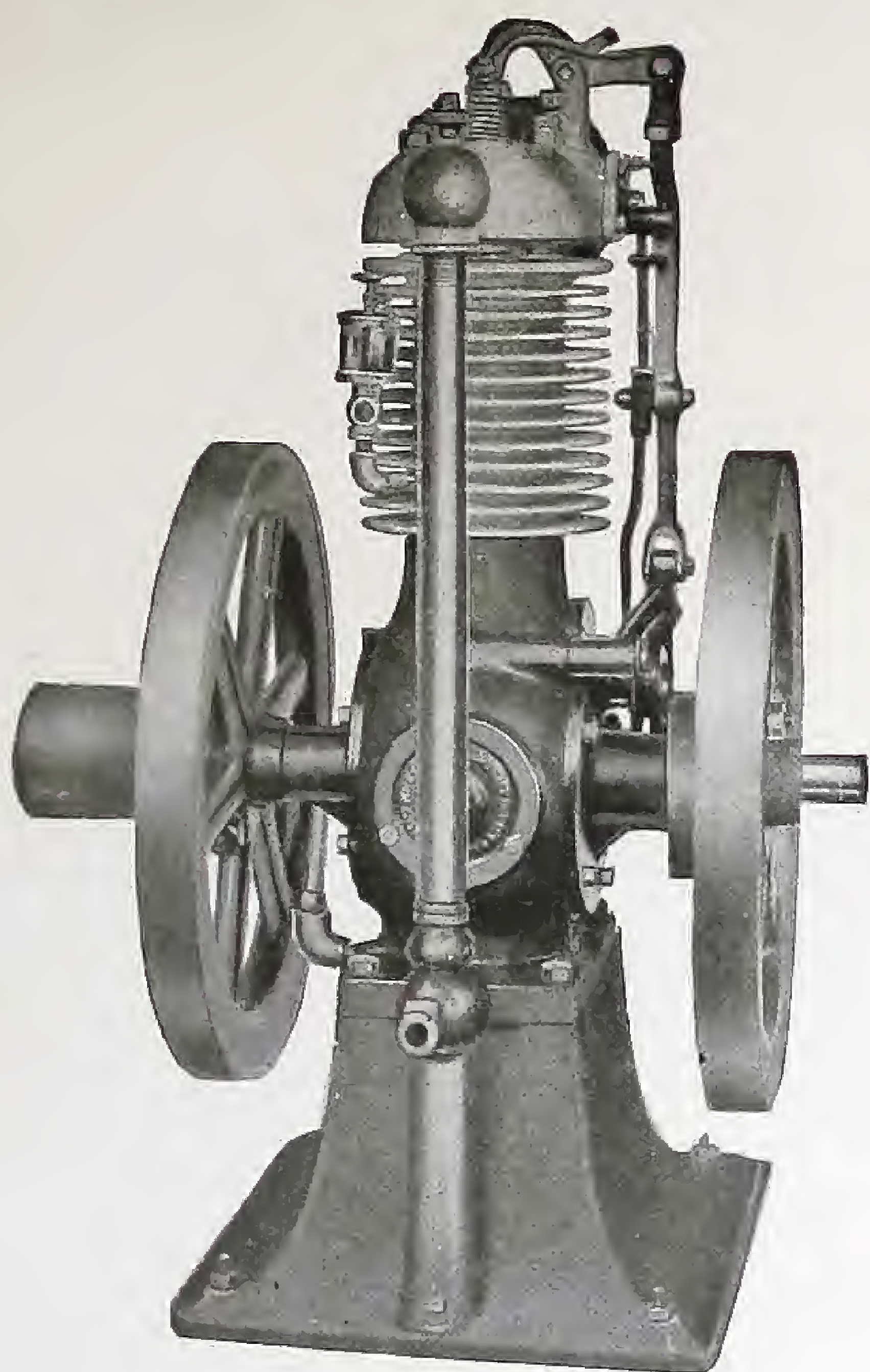


ELECTRIC MOTORS

Where electricity is used, the motor is attached direct to the Compressor frame, applying the power centrally between the bearings.

This makes an ideal power, owing to the low cost of operation, and small space required for installation.

We furnish Electric Motors in all sizes, direct or alternating current, for all purposes.



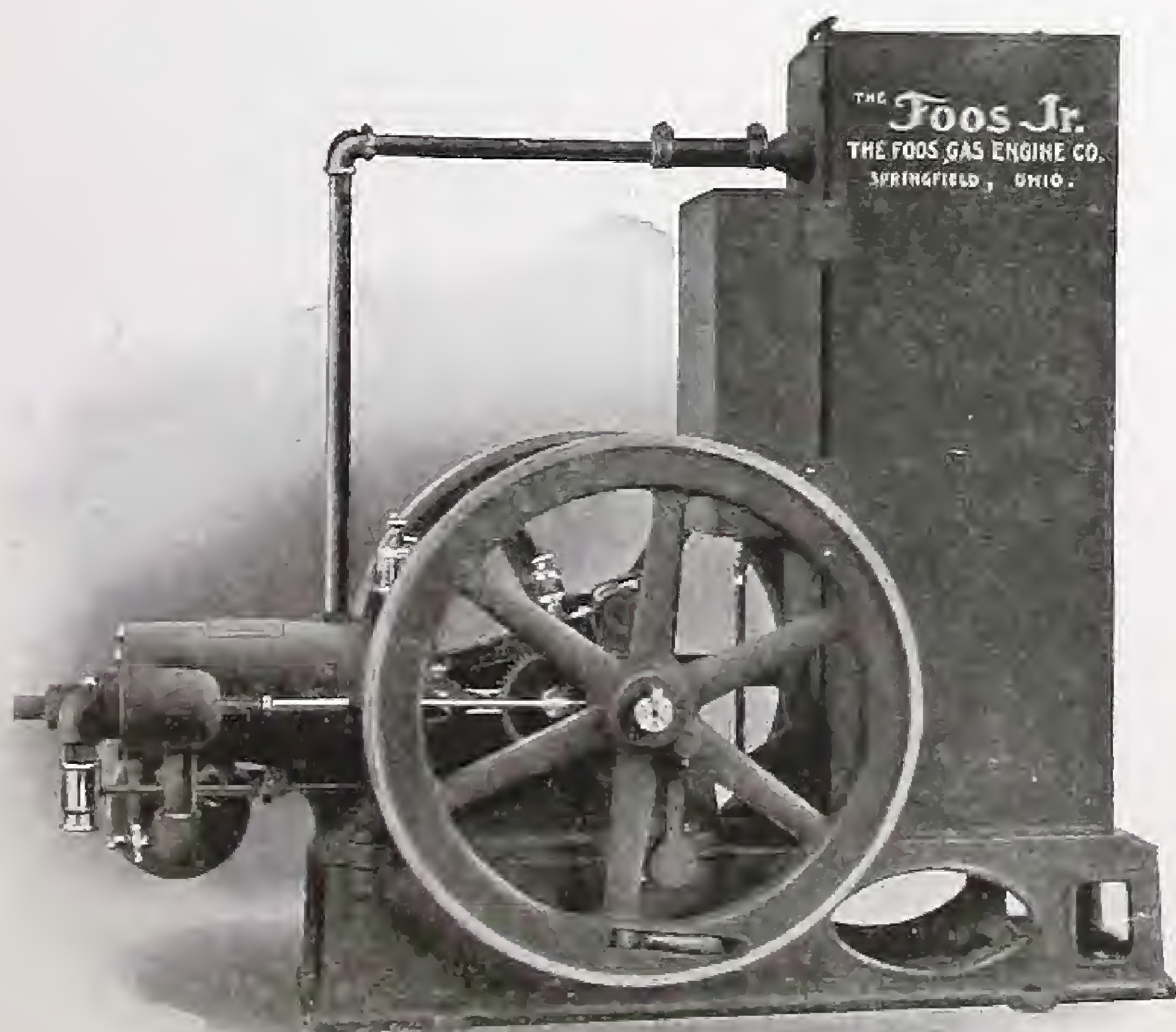
GAS AND GASOLINE ENGINES

Gas and gasoline engines until the last few years had not reached a very high state of perfection. The advent of the automobile, however, has brought about many improvements by the employment of the best mechanical talent in the world, and the expenditure of millions of dollars.

By reason of these great improvements the United Pump & Power Co. is enabled to attach its patent device, which will stop gasoline engines automatically. That is to say, when the air in the reservoir reaches a maximum number of pounds at which the gauge is set, the engine will stop.

The power from the engine used to operate our water system may also be utilized for all purposes where power is needed.

The United Pump & Power Co. furnish all forms of gas and gasoline engines.





MR. D. N. HANSON'S COUNTRY HOME AT LIBERTYVILLE, ILLINOIS



NEW YORK,
79-81 SPRING ST

PHONE MAIN 2003
AUTO 5309

MASON & HANSON
IMPORTERS & JOBBERS OF
WOOLENS
AND **TAILORS TRIMMINGS**
220-222 MONROE STREET

Chicago, October 29th, '06

Mr. T. O. Perry,
Chicago, Illinois.

Dear Sir:-

The pneumatic pump and air pressure system you installed at my country home near Libertyville, Illinois during the Summer of 1905 has been in successful use two seasons. Your system has done all you claim for it in supplying fresh water direct from the well, and also supplying rain water from the cistern to my three story house, and two story barn. The house has three bath rooms, four toilets, four lavatories, kitchen and laundry, and the barn has one bath, one toilet, one lavatory, one horse sink, and carriage wash.

In addition to this I have used the water freely in sprinkling flower beds.

The wind mill is located about 300 feet west of the well, near the barn, and the well is close to the house. In my opinion your system is economical and effective.

Yours very truly

A. A. Hanson

Table showing amount of water in gallons, that can be drawn from the faucets, at different elevations, direct from the source of supply, by the expansion of air in a 1,000 gallon tank at various initial tensions:

	Pounds Pressure Per Square Inch					
	50	60	70	80	90	100
HEIGHT OF LIFT IN FEET	Gallons of Water that can be Delivered					
100	100	269	438	607	776	945
90	135	371	554	739	919	1102
80	292	491	631	889	1088	1287
70	417	635	852	1070	1288	1509
60	567	809	1050	1291	1532	1773
50	754	1024	1293	1563	1833	2103
40	990	1297	1604	1910	2216	2523
30	1302	1656	2010	2365	2719	3073
20	1728	2148	2568	2988	3407	3827
10	2348	2864	3379	3894	4409	4924

FOR EXAMPLE: A 1,000 gallon tank filled with compressed air at an initial tension of 100 lbs. per square inch will deliver 945 gallons of water to a height of 100 feet, or 4924 gallons to a height of 10 feet.

IN CONCLUSION

we wish to say that the Pneumatic Pump, Automatic Cut-off on Air Compressor, Wind Mill and Tower illustrated on the foregoing pages are fully covered by United States Patents, and the United Pump & Power Co. will prosecute any infringements on the same to the highest Court.

We want responsible dealers to represent us in various localities, and are willing at all times to thoroughly protect them in such territory as may be assigned.

The placing of our Pneumatic Water System on the market is a distinct step in advance. If you want to keep up with the times, it will pay you to investigate this matter without delay, as we want only one representative in a locality.

One of our complete Systems, operated by an Electric Motor, may be seen at our exhibit and assembling room on the 8th floor of the Caxton Bldg., and will be thoroughly explained and demonstrated to all who are interested.